We claim:

1. A method for operating an aircraft early warning system, which comprises:

processing transmitted data on-line;

displaying cockpit, aircraft, and environmental parameters; and

making a change to minimize risk and prevent accidents.

2. The method according to claim 1, which comprises alerting an on-board crew-member and optimizing workloads to minimize the risk.

3. The method according to claim 1, which comprises:

extracting further data containing "what-if" scenarios;

querying a plurality of pre-stored events and detecting a hazardous event with simulation; and

assessing a risk of an aircraft operation and determining a probability of a reoccurrence of a detected event.

4. The method according to claim 3, which comprises displaying and replaying the detected event in a three-dimensional view.

5. The method according to claim 3, which comprises identifying, evaluating and implementing alternatives for mitigating the risk.

6. The method according to claim 1, which comprises alerting ground staff if an emergency situation occurs.

7. The method according to claim 6, which comprises setting landing priorities to expedite a safe landing.

8. The method according to claim 6, which comprises sending instructions to an aircraft auto-flight system for assuming control of the aircraft.

9. The method according to claim 6, which comprises sending instructions to an aircraft auto-flight system for maneuvering the aircraft.

10. The method according to claim 6, wherein the ground staff assumes remote operation of the aircraft.

11. The method according to claim 1, which further comprises transmitting aircraft data and/or voice to a secure ground storage and distribution unit for backing up information contained in aircraft black boxes.

12. The method according to claim 11, which further comprises distributing the data from the black boxes to at least one of an airline and federal personal for at least one of security analysis and flight operational quality assurance analysis.

13. A computer readable medium having program instructions for performing a method for providing aircraft early warnings, comprising:

processing transmitted data on-line;

displaying cockpit and aircraft parameters and environment; and

making a change to minimize a risk and prevent accidents.

14. The computer readable medium of claim 13, further comprising further program instructions for alerting an on-board crew and optimizing workloads to minimize the risk.

15. The computer readable medium of claim 13, further comprising further program instructions for:

extracting further data containing "what-if" scenarios;

querying a plurality of pre-stored events and detecting a hazardous event with simulation; and

assessing a risk of an aircraft operation and determining a probability of a reoccurrence of a detected event.

16. The computer readable medium of claim 15, further comprising further program instructions for displaying and replaying the detected event in a three-dimensional view.

17. The computer readable medium of claim 15, further comprising further program instructions for identifying, evaluating and implementing alternatives for mitigating the risk.

18. The computer readable medium of claim 13, further comprising further program instructions for alerting ground staff if an emergency situation, occurs.

19. The computer readable medium of claim 18, further comprising further program instructions for setting landing priorities to expedite a safe landing.